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ABSTRACT

Biology 30 is a twelfth-grade biology course for students in Alberta, Canada. This document is a final test for the course. Intended for administration during June 1985, it contains 80 multiple-choice questions and six written-response problems. Two-and-one-half hours are allowed for completing the test. No answer key is included since scoring is done by the province education department. (JN)

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GRADE 12 DIPLOMA EXAMINATION

Biology 30

June 1985

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GRADE 12 DIPLOMA EXAMINATION
BIOLOGY 30

DESCRIPTION

Time: 2½ hours

Total possible marks: 100

This is a **CLOSED-BOOK** examination consisting of two parts:

PART A: 80 multiple-choice questions each with a value of 1 mark.

PART B: Six written-response questions for a total of 20 marks.

GENERAL INSTRUCTIONS

Fill in the information on the answer sheet as directed by the examiner.

For multiple-choice questions, read each carefully and decide which of the choices BEST completes the statement or answers the question. Locate that question number on the answer sheet and fill in the space that corresponds to your choice. USE AN HB PENCIL ONLY.

Example

This examination is for the subject area of

A. Chemistry
B. Biology
C. Physics
D. Mathematics

Answer Sheet

A	B	C	D
①	●	③	④

If you wish to change an answer, please erase your first mark completely.

For written-response questions, read each carefully, show all your calculations, and write your answer in the space provided in the examination booklet.

NOTE: The perforated pages at the back of this booklet may be torn out and used for your rough work.

DO NOT FOLD EITHER THE ANSWER SHEET OR THE EXAMINATION BOOKLET

The presiding examiner will collect the answer sheet and examination booklet for transmission to Alberta Education.

JUNE 1985

PART A

INSTRUCTIONS

There are 80 multiple-choice questions with a value of one mark each in this section of the examination. Use the separate answer sheet provided and follow the specific instructions given.

NOTE: The perforated pages at the back of this booklet may be torn out and used for your rough work.

WHEN YOU HAVE COMPLETED PART A, PROCEED DIRECTLY TO PART B

DO NOT TURN THE PAGE TO START THE EXAMINATION UNTIL TOLD TO DO SO BY THE PRESIDING EXAMINER.

1. Fat-soluble molecules MOST READILY pass through a cell membrane that contains a high concentration of

   A. water
   B. lipid
   C. starch
   D. protein

2. A membrane that allows only certain types of molecules to pass through is best described as being

   A. soluble
   B. insoluble
   C. impermeable
   D. selectively permeable

Use the following information to answer question 3.

(1) As scientists continued to study the microscopic structure of living things, (2) they began to see similarities and differences among them. In 1839, two German scientists, Matthias Schleiden and Theodore Schwann, stated that (3) all living things are composed of cells. (4) The observations of many scientists supported the statement of Schleiden and Schwann.

3. Which underlined portion could be described as a prediction?

   A. 1
   B. 2
   C. 3
   D. 4

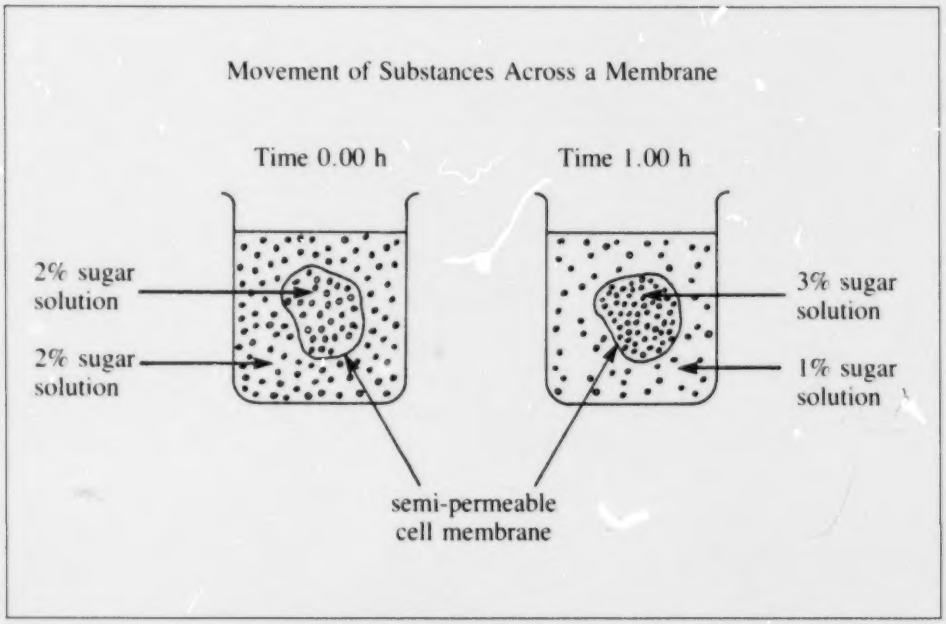
4. When the solute concentration of the cytoplasm is the same as that of the extracellular fluid,

   A. more water moves out of the cell than into it
   B. less water moves out of the cell than into it
   C. water will not move into or out of the cell
   D. water moves at equal rates both into and out of the cell

5. Regulation of the movement of substances that enter or leave a cell is a function of the

   A. vacuoles
   B. ribosomes
   C. cell wall
   D. cell membrane

Use the following information to answer question 6.



6. What process would account for the increase in the concentration of sugar within the cell after one hour?

A. Osmosis
B. Diffusion
C. Ionic attraction
D. Active transport

---

7. The organelles that manufacture and package products for secretion are the

A. lysosomes
B. ribosomes
C. Golgi bodies
D. mitochondria

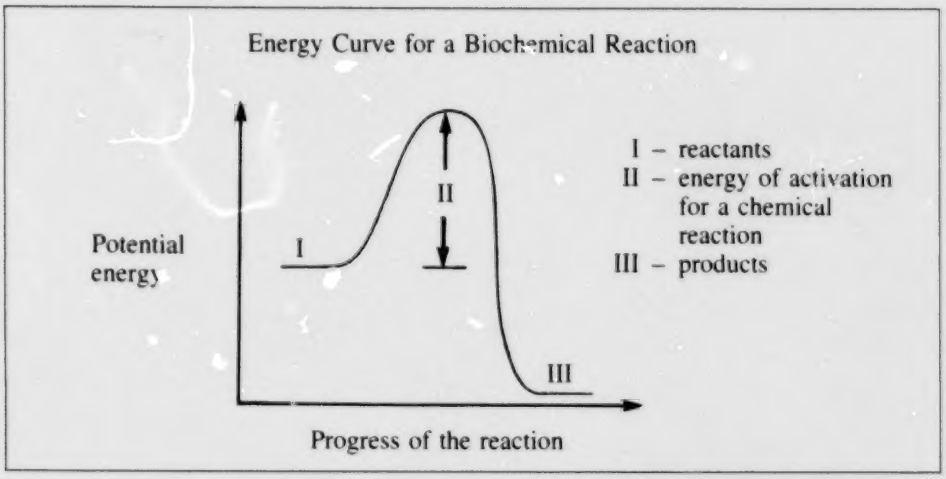
8 Homeostasis is a condition in which

A. the internal environment of an organism is the same as the external environment
B. the amount of food entering the digestive system equals the amount of waste eliminated
C. all the organism's bodily functions are static despite changes in the external environment
D. the internal environment of the organism is maintained in a state of equilibrium despite changes in the external environment

9. The inhibition of an enzyme by the product of the reaction that is catalyzed by the enzyme is an example of

A. compensation
B. reinforcement
C. positive feedback
D. negative feedback

Use the following information to answer question 10.



10. The potential energy represented by II may be reduced in a living system by

A. decreasing the number of reactants in I
B. increasing the temperature substantially
C. using an enzyme to combine the reactants
D. increasing the demand for the products at III

---

11. The substance in the bloodstream that provides energy for muscular movement is

A. glucose
B. albumin
C. fructose
D. hemoglobin

12. Fats, carbohydrates, and proteins all contain

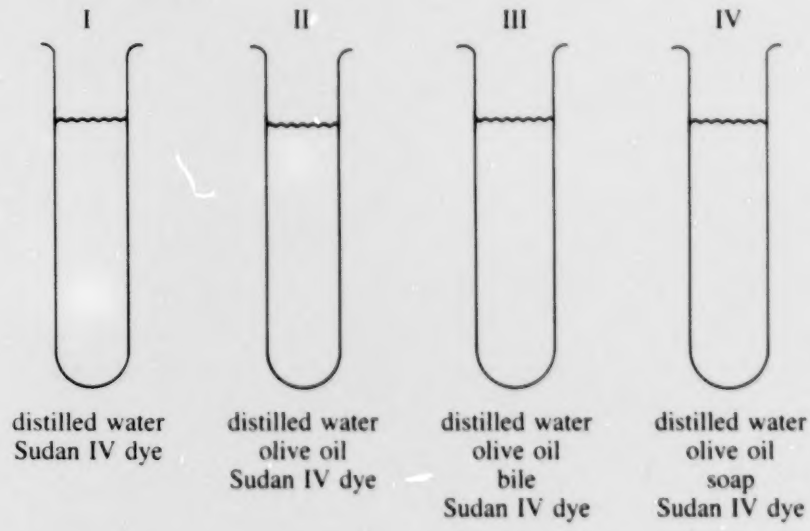
A. carbon, hydrogen, and oxygen
B. oxygen, carbon, and nitrogen
C. hydrogen, nitrogen, and oxygen
D. nitrogen, hydrogen, and carbon

13. Benedict's solution is added to a test tube containing an unknown solution. The blue solution upon heating changes to a yellowish-orange color. This test indicates the presence of

A. lipids
B. starches
C. amino acids
D. simple sugars

Use the following information to answer question 14.

In an investigation of lipids, a student set up test tubes as follows:



Each test tube was thoroughly shaken five minutes before observations were noted.

14. The solutions that turned a uniform reddish color were

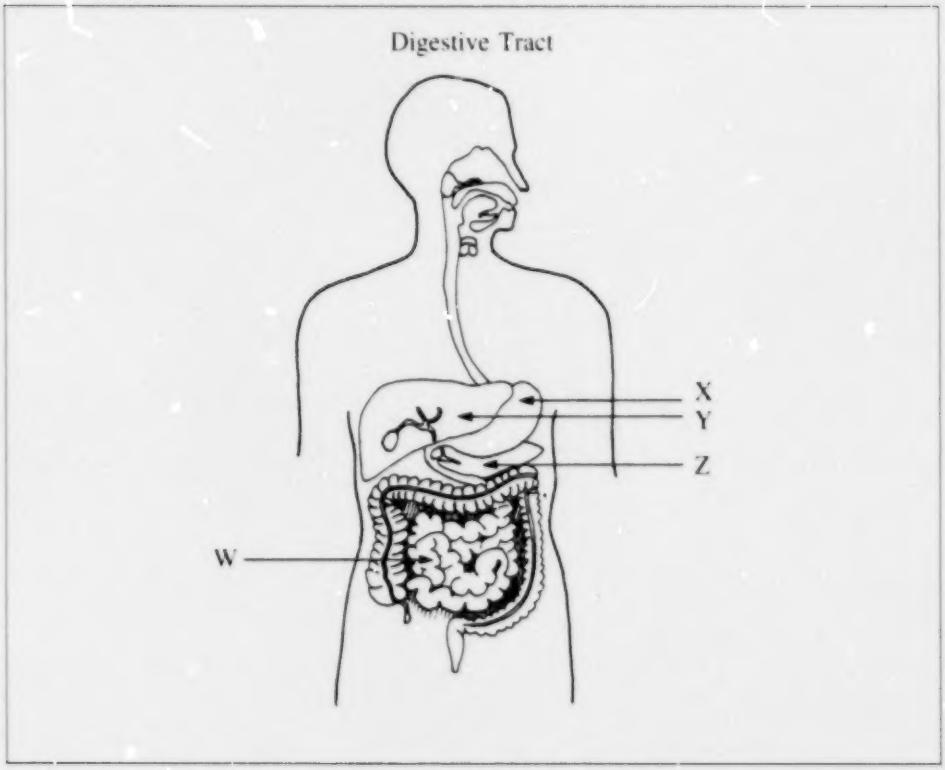
A. I and II
B. I and III
C. II and III
D. III and IV

---

15. A test that indicates the presence of proteins in a solution involves the use of

A. iodine
B. Sudan IV
C. Biuret reagent
D. Benedict's solution

Use the following information to answer question 16.



16. Protein digestion begins in the area labelled

A. W
B. X
C. Y
D. Z

---

17. Relatively normal digestive functions continue after the removal of the gall bladder because it

A. is a storage area for bile and its removal does not affect the production of bile
B. produces an emulsifying agent rather than an enzyme, and is not essential to digestion
C. has regenerative powers and can be regrown in the body provided that the bile duct is not damaged
D. is a vestigial organ and, like the appendix, it can be removed without impairing normal digestive functions

18. Most bacteria ingested with food do not affect the health of a human because

A. the acidity of the stomach destroys most bacteria
B. there is little or no oxygen in the digestive tract
C. leucocytes in the digestive tract destroy harmful bacteria through phagocytosis
D. foods do not stay in the stomach long enough for the bacteria to multiply to harmful levels

19. Chewing food aids digestion by

A. completing the chemical breakdown of carbohydrates
B. breaking up large protein molecules through hydrolysis
C. exposing a greater surface area of food to enzymatic activity
D. stimulating the release of an emulsifier from the salivary glands

20. A damaged liver may cause a decrease in the rate of fat digestion due to insufficient production of

A. bile
B. lipase
C. glycogen
D. sodium bicarbonate

21. The function of secretin is to

A. stimulate the release of bile
B. inhibit the production of bile
C. stimulate the release of gastric juice
D. stimulate the release of pancreatic juice

22. The presence of undigested proteins in the digestive tract stimulates the secretion of gastrin into the

A. liver
B. blood
C. pancreas
D. small intestine

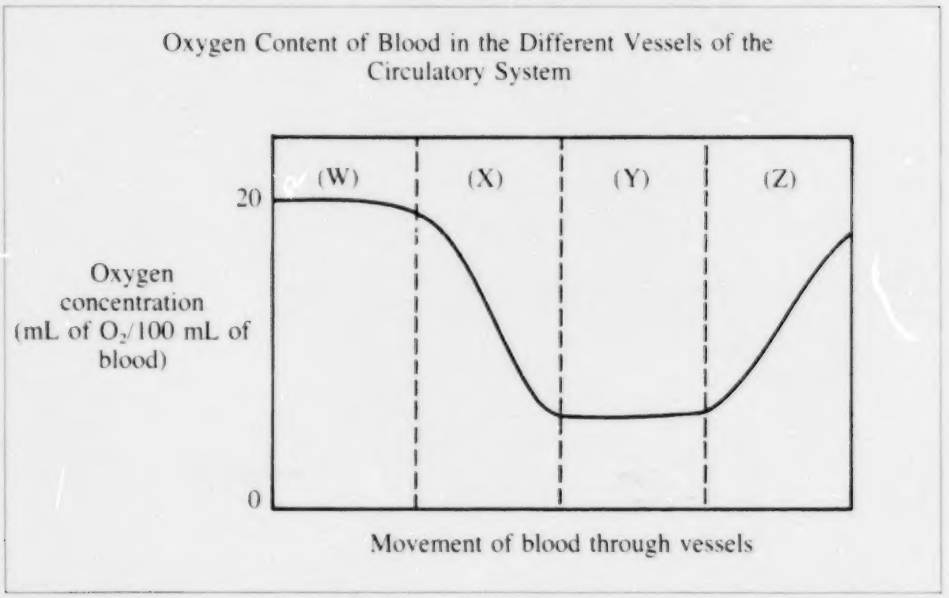
23. In an intestinal bypass operation, a length of the small intestine is surgically removed and the remaining intestine is connected. This operation is used to treat conditions that are associated with

A. an excessive amount of nutrient intake
B. a blockage of the bile duct by gallstones
C. a lack of insulin secretion by the pancreas
D. an excessive amount of gastric juice secretion by the stomach

24. In the human heart, the wall of the left ventricle is thicker than that of the right ventricle because the left ventricle

A. pumps blood to all parts of the body
B. contracts more often than the right ventricle
C. has more room to expand on the left side of the body
D. receives blood that has a high concentration of oxygen

Use the following information to answer questions 25 and 26.



25. The graph segment that represents the diffusion of oxygen into the tissue cells is

A. W
B. X
C. Y
D. Z

26. The blood in vessels represented by Z would MOST LIKELY be found in the

A. lung
B. heart
C. muscle capillary
D. pulmonary artery

27. When blood enters a vein from a venule, the blood pressure will

A. increase because of vein size
B. decrease because of vein size
C. increase because of stretch receptor stimulation
D. remain constant because of the heart's pumping action

28. Stretch receptors located in the walls of the right atrium would be stimulated directly by

A. the pacemaker
B. vigorous exercise
C. high levels of CO_2
D. increased blood volume

29. The medulla oblongata can increase the heart rate in response to

A. a rise in the pH of the blood
B. an increase in blood pressure
C. stimulation of the vagus nerve
D. high CO_2 concentration in the blood

30. In a healthy person, which substance is normally present in blood but absent in lymph?

A. Inorganic ions
B. Plasma proteins
C. Red blood cells
D. White blood cells

31. Blood from a donor is tested and is found to show NO clumping with anti-A serum or anti-B serum. Which blood type could be mixed with the donor's blood and show NO clumping?

A. Type O
B. Type A
C. Type B
D. Type AB

32. Carbon monoxide is a poisonous gas that attaches preferentially to hemoglobin molecules so that oxygen is unable to bind with hemoglobin. The body's homeostatic response to being exposed to a small amount of carbon monoxide over a period of several days is to

A. decrease the breathing rate
B. increase red blood cell production
C. increase white blood cell production
D. decrease the production of carbon dioxide

Use the following information to answer question 33.

The diagram illustrates a cell function.

33. The diagram BEST illustrates a function of

A. platelets
B. leucocytes
C. hemoglobin
D. red blood cells

---

34. If the sinoatrial (SA) node failed, what would MOST LIKELY result?

A. The heartbeat would be weak.
B. The heart would stop beating.
C. The heart would beat more slowly.
D. The heart would beat more quickly.

35. Interstitial fluid is carried by the lymphatic system to the

A. excretory system
B. endocrine system
C. circulatory system
D. respiratory system

36. To cause the air pressure in the lungs to be GREATER than atmospheric pressure, the

A. lungs must deflate
B. diaphragm must relax
C. alveoli must be damaged
D. rib muscles must contract

37. A low concentration of O_2 in the blood is detected directly by the

A. medulla, which causes the breathing rate to increase
B. medulla, which causes the breathing rate to decrease
C. chemoreceptors that send a message to the medulla, which causes the breathing rate to decrease
D. chemoreceptors that send a message to the medulla, which causes the breathing rate to increase

38. The circulatory system of a person who must live in an oxygen-enriched environment would most likely adapt by producing

A. a decreased volume of plasma
B. an increased amount of hemoglobin
C. a decreased number of red blood cells
D. an increased number of white blood cells

39. Breathing rate is regulated PRIMARILY by the amount of

A. plasma in the blood
B. hemoglobin in the blood
C. carbon dioxide in the blood
D. surplus oxygen in the blood

Use the following information to answer question 40.

Composition of Inhaled and Exhaled Air		
Gas	Inhaled Air (%)	Exhaled Air (%)
O_2	20.71	14.60
CO_2	0.41	4.00
H_2O	1.25	5.90
N_2	78.00	75.50

40. Based on the data, the BEST conclusion is that

A. the alveoli store excess CO_2 for release during exhalation
B. less than half of the O_2 that is inhaled is used by the body
C. atmospheric N_2 is an essential source of nitrogen for protein synthesis
D. the water produced by the respiratory tract prevents it from drying out

41. The major function of the alveoli is to

A. moisten the air
B. filter dust and bacteria out of the air
C. secrete mucus to trap foreign particles
D. provide a greater area for gas exchange

42. The anaerobic breakdown of glucose in muscle tissue results in

A. a high yield of energy
B. the formation of lactic acid
C. the formation of H_2O and CO_2
D. the release of energy in the citric acid cycle

43. Muscle fatigue results from

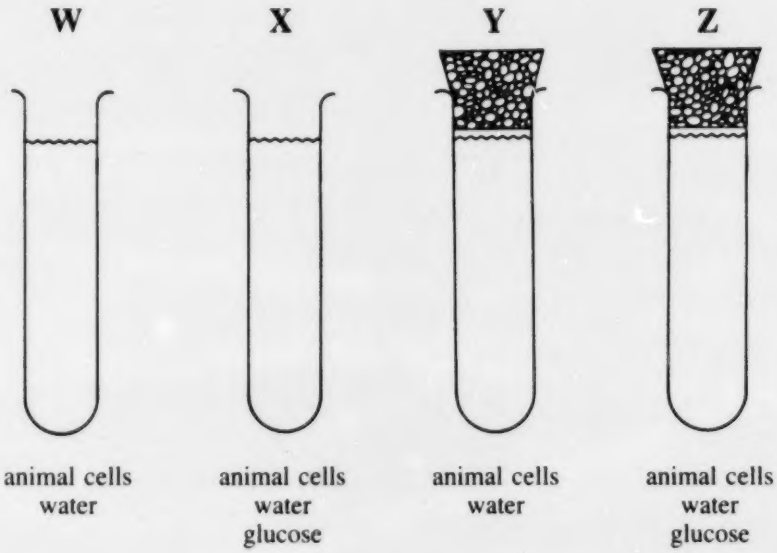
A. a depletion of water by the muscle
B. an increase in acidity of the muscle
C. a buildup of adenosine triphosphate (ATP) in the muscle
D. an excessive amount of creatine phosphate in the muscle

44. Aerobic and anaerobic respiration are similar in that they both

A. liberate energy from glucose
B. produce O_2 as a waste product
C. result in the accumulation of lactic acid
D. utilize oxygen as a final electron acceptor

Use the following information to answer question 45.

A student set up four test tubes each containing an equal number of live animal cells as follows.



45. Over time, total adenosine triphosphate (ATP) production will be greatest in test tube

A. W
B. X
C. Y
D. Z

---

46. The filtering process in the kidney depends MAINLY on

A. osmosis
B. reabsorption
C. blood pressure
D. active transport

47. Dialysis machines purify blood by passing it through semi-permeable cellophane tubing immersed in a tank of dialysing fluid. Wastes are transferred through the tubing into the fluid. A system of this type can perform all the functions of a normal kidney except the

A. diffusion of salts into the blood
B. osmosis of water into the collecting duct
C. filtration of smaller particles into the nephron
D. active transport of substances out of the blood

48. The presence of antidiuretic hormone (vasopressin) in the wall of the collecting duct of the nephron ensures that

A. the blood pressure will be lowered
B. more water will appear in the urine
C. sodium will be reabsorbed into the bloodstream
D. more water will be reabsorbed into the bloodstream

49. Urea is formed from

A. sugars in the liver
B. sugars in the kidney
C. excess amino acids in the liver
D. excess amino acids in the kidney

50. Under normal conditions proteins are found in the fluid of the

A. glomerulus
B. loop of Henle
C. proximal tubule
D. Bowman's capsule

51. One function of the kidney is to

A. form urea
B. regulate body temperature
C. regulate the acid-base balance
D. secrete antidiuretic hormone (vasopressin)

52. Which is the correct sequence of structures through which a molecule of water passes before it is eliminated from the body?

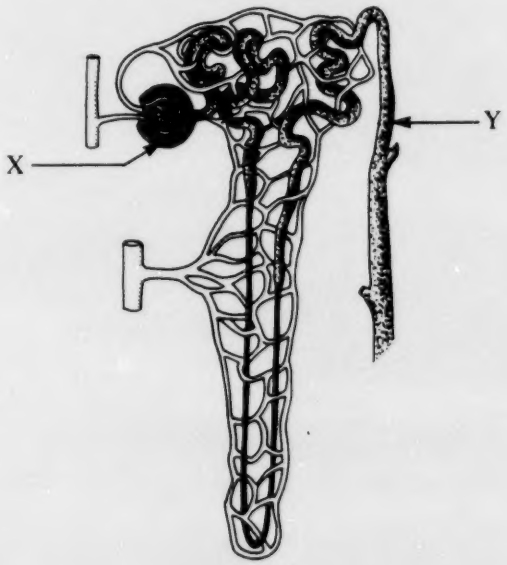
A. Tubule → urethra → bladder → ureter
B. Bowman's capsule → tubule → ureter → urethra
C. Bowman's capsule → glomerulus → tubule → ureter
D. Collecting tubule → distal tubule → ureter → bladder

53. The release of adrenalin into the blood initiates the conversion of

A. glucose to glycogen
B. glycogen to glucose
C. amino acids to proteins
D. proteins to amino acids

Use the following information to answer question 54.

Human Nephron



54. If the concentration of a substance is 0.01 g/L at X and 0.0001 g/L at Y, then that substance is MOST LIKELY

A. not required by the tubules
B. secreted by the tubule cells
C. reabsorbed from the tubules
D. metabolized by the tubule cells

---

55. Hyposecretion of growth hormone would MOST LIKELY cause

A. obesity
B. diabetes
C. giantism
D. dwarfism

Use the following information to answer questions 56 and 57.

A number of experiments were conducted on seven mice in a laboratory. Mice have endocrine structures and hormones similar to those found in humans. Brief summaries of the experimental procedures and the results are shown.

Experiment	Procedure	Result
1	Gland removed	Uterine lining did not display normal gradual thickening
2	Hormone injected	Urine output decreased
3	Blood flow to the pituitary blocked	Rate of metabolism decreased
4	Gland removed	No observable effects over time
5	Hormone injected	Female mice developed male secondary sexual characteristics
6	Part of a gland removed	Mice became obese
7	Hormone injected	Glucose was converted to glycogen

56. The role of thyroxin is demonstrated in experiments

A. 1 and 6
B. 1 and 7
C. 3 and 5
D. 3 and 6

57. The gland that was removed in experiment 1 was most likely the

A. ovary or the thyroid
B. pituitary or the ovary
C. adrenal or the thyroid
D. pituitary or the adrenal

58. Three hormones directly involved in glucose metabolism are

A. glucagon, adrenalin, and insulin
B. insulin, aldosterone, and glucagon
C. thyroxin, adrenalin, and antidiuretic hormone (vasopressin)
D. insulin, aldosterone, and antidiuretic hormone (vasopressin)

59. As the concentration of thyroxin in the blood increases, the concentration of

A. iron increases
B. iron decreases
C. thyroid stimulating hormone (TSH) increases
D. thyroid stimulating hormone (TSH) decreases

Use the following information to answer question 60.

The Human Ear

60. The structure labelled X is

A. a cochlea
B. an ear drum
C. a semicircular canal
D. an ossicle (ear bone)

61. Which is the correct sequence of structures in the eye through which a light ray passes?

A. Cornea → lens → retina
B. Cornea → retina → lens
C. Retina → lens → cornea → rods and cones
D. Lens → cornea → rods and cones → retina

62. The ossicles and the organ of Corti play a role in

A. seeing
B. tasting
C. hearing
D. balancing

63. Unusual stimulation of the semicircular canals may result in

A. seasickness
B. hypertension
C. near-sightedness
D. migraine headaches

64. Nerve impulse transmission across the synapse is from the

A. dendrites to the cell bodies
B. dendrites to the axon terminals
C. axon terminals to the dendrites
D. cell bodies to the axon terminals

65. The substance that increases the speed of transmission of a nerve impulse in most neurons is composed mainly of

A. lipid
B. protein
C. carbohydrate
D. adenosine triphosphate (ATP)

66. Mitochondria in the synaptic knob of an axon provide energy for the

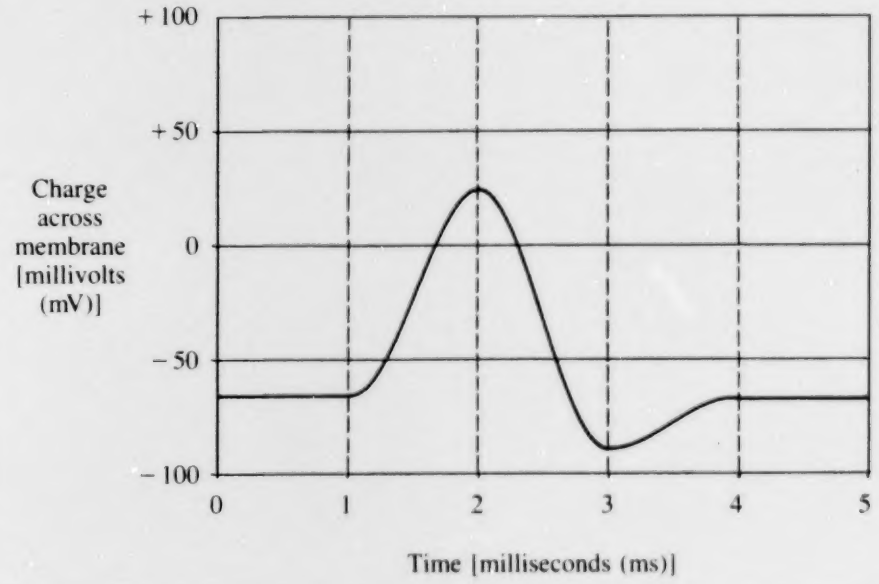
A. synthesis of acetylcholine
B. pumping of sodium ions across the synapse
C. pumping of potassium ions across the synapse
D. synthesis of receptor molecules in the dendrites

67. A stimulus of 70 millivolts (mV) applied to a dendrite end causes an impulse to travel along the neuron. A stimulus of 50 mV produces a similar action. This demonstrates that

A. 50 mV is the threshold level
B. above a threshold value, the neural response is constant
C. depolarization is not dependent upon the strength of the stimulus
D. the greater the voltage difference, the stronger the neural response

Use the following information to answer question 68.

The graph shows the depolarization of a neuron when it is stimulated by an electrical impulse.



68. What likely occurred during the time interval between 2 ms and 3 ms?

A. A refractory period
B. An inflow of sodium ions
C. The reception of a second stimulus
D. The active transport of sodium ions into the neuron

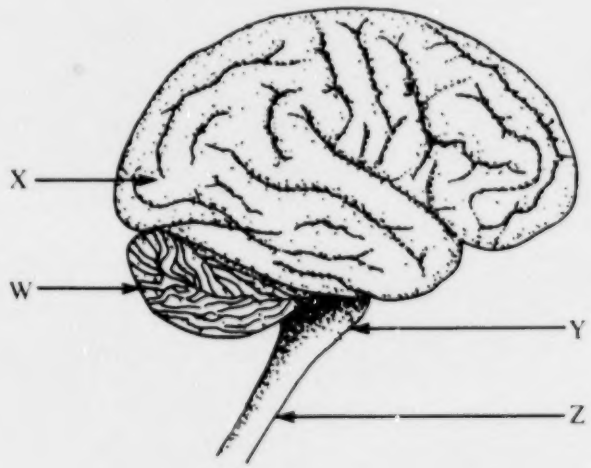
---

69. The source of energy that is FIRST depleted when a muscle contracts is

A. glycogen
B. lactic acid
C. creatine phosphate
D. adenosine triphosphate (ATP)

Use the following information to answer question 70.

The Human Brain



70. A car accident victim who suffered a severe head injury continues to have poor balance, distorted speech, and an uncoordinated walk. The region of the brain most likely damaged is

A. W
B. X
C. Y
D. Z

---

71. The body's response to danger involves the

A. sympathetic system, which increases the size of the pupils and decreases peristalsis in the stomach

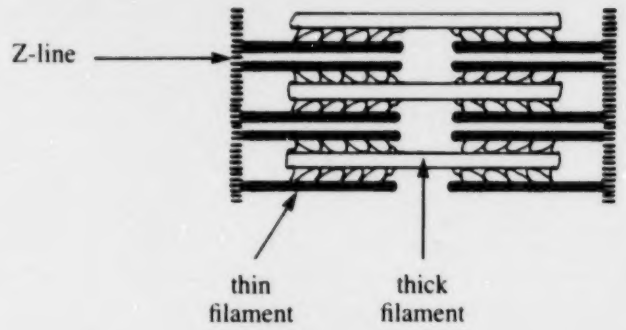
B. parasympathetic system, which increases the size of the pupils and decreases peristalsis in the stomach

C. sympathetic system, which increases the size of the bronchioles and decreases the size of the blood vessels in skeletal muscles

D. parasympathetic system, which increases the size of the bronchioles and decreases the size of the blood vessels in skeletal muscles

Use the following information to answer question 72.

Human Fibril Structure



72. Which is a correct statement regarding muscle contraction?

A. The Z-line contracts vertically for muscle contraction.
B. As the muscle is contracting, the thin filaments pull away from the Z-line.
C. The thin filaments and the thick filaments pull past each other during contraction.
D. As the muscle is contracting, the Z-line and thin filaments on one side pull away from the Z-line and thin filaments on the opposite side.

---

73. If the stimuli to a muscle fibre are very frequent, as when one touches a high-tension electrical wire, the muscle will

A. remain contracted
B. twitch continuously
C. contract once and then relax
D. respond with an increasing strength of contraction

74. A corpus luteum that continues to produce progesterone beyond the 28th day of a typical menstrual cycle will

A. induce sloughing of the uterine lining
B. stimulate development of a new follicle
C. inhibit contraction of the uterine muscles
D. prevent implantation of the unfertilized egg

75. Two functions of glandular secretions in semen are

A. to provide the sperm with enough momentum to penetrate the egg, and to provide nourishment for the developing embryo

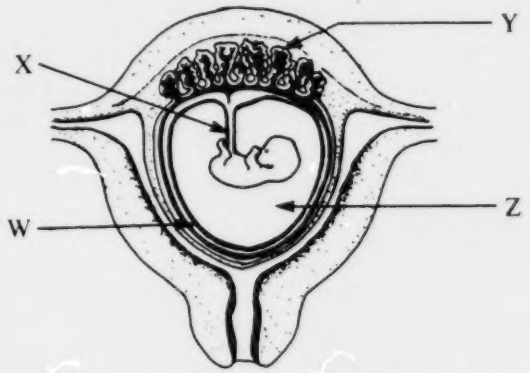
B. to provide the sperm with nourishment, and to provide chemical protection against secretions of the female reproductive tract

C. to provide the sperm with a means of motility and to provide nourishment for the developing embryo

D. to provide the sperm with energy to penetrate the egg, and to insulate the sperm from high temperatures in the uterus

Use the following information to answer question 76.

Stage in the Development of a Human Embryo



76. The placenta is labelled

A. W
B. X
C. Y
D. Z

---

77. Luteinizing hormone (LH) is produced by the

A. follicle
B. placenta
C. corpus luteum
D. pituitary gland

78. The onset of labor is partly due to decreased levels of

A. estrogen
B. progesterone
C. luteinizing hormone (LH)
D. follicle stimulating hormone (FSH)

Use the following information to answer question 79.

Blood samples from four subjects are tested for the presence of progesterone, testosterone, and estrogen. The results are recorded in the table below.

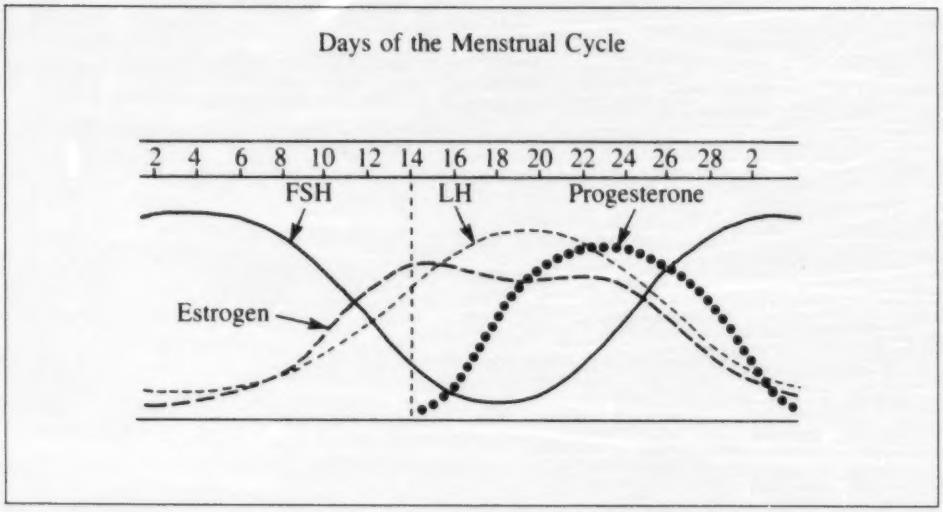
"+" indicates relative amount of hormone present
"–" indicates no hormone present

Subject	Progesterone	Testosterone	Estrogen
W	–	+ + +	–
X	+	–	+ + +
Y	+ + + +	–	+
Z	–	+ + +	+

79. Which subjects are male?

A. X and Y
B. Y and Z
C. W and X
D. W and Z

Use the following information to answer question 80.



80. The BEST interpretation of the information is that

A. a sudden decrease of luteinizing hormone (LH) initiates ovulation
B. the concentration of estrogen is at its peak about the time of ovulation
C. menstruation occurs when the concentrations of all four hormones are decreasing
D. after ovulation, estrogen and progesterone exert positive feedback on the levels of both luteinizing hormone (LH) and follicle stimulating hormone (FSH)

YOU HAVE NOW COMPLETED THE MULTIPLE-CHOICE SECTION OF THE EXAMINATION. PLEASE PROCEED TO THE NEXT PAGE AND ANSWER THE WRITTEN-RESPONSE QUESTIONS IN PART B.

PART B

INSTRUCTIONS

Please write your answers in the examination booklet as neatly as possible.

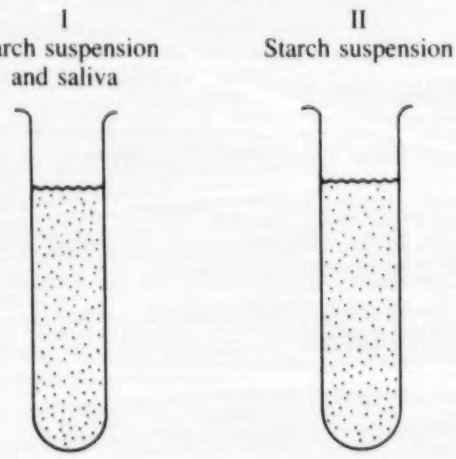
NOTE: The perforated pages at the back of this booklet may be torn out and used for your rough work.

TOTAL MARKS: 20

START PART B IMMEDIATELY

Use the following information to answer question 1.

In an experiment to investigate the digestion of starch, a student set up test tubes I and II as shown in the diagram.



Both test tubes were incubated at 37°C for one hour.

(1 mark) **1. a.** What was the purpose of test tube II in the experiment?

_____

(3 marks) **b.** Describe a procedure to determine whether starch digestion has occurred in test tube I.

_____

_____

_____

_____

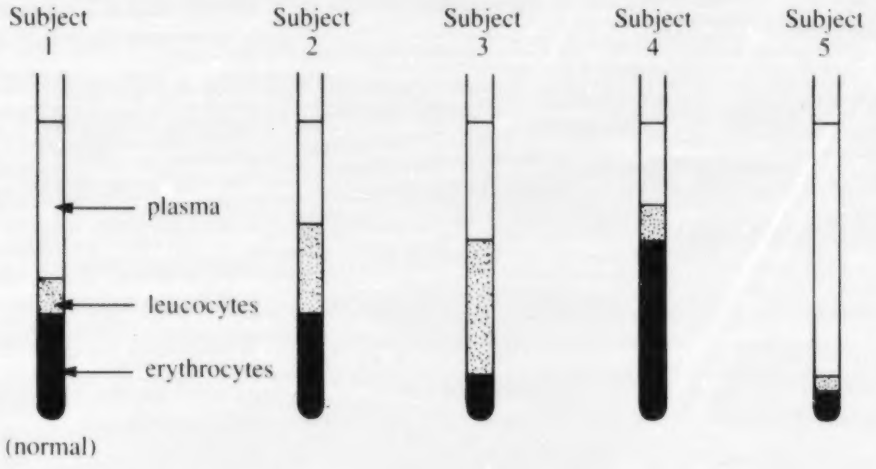
_____

_____

Use the following information to answer question 2.

Blood Samples from Five Subjects

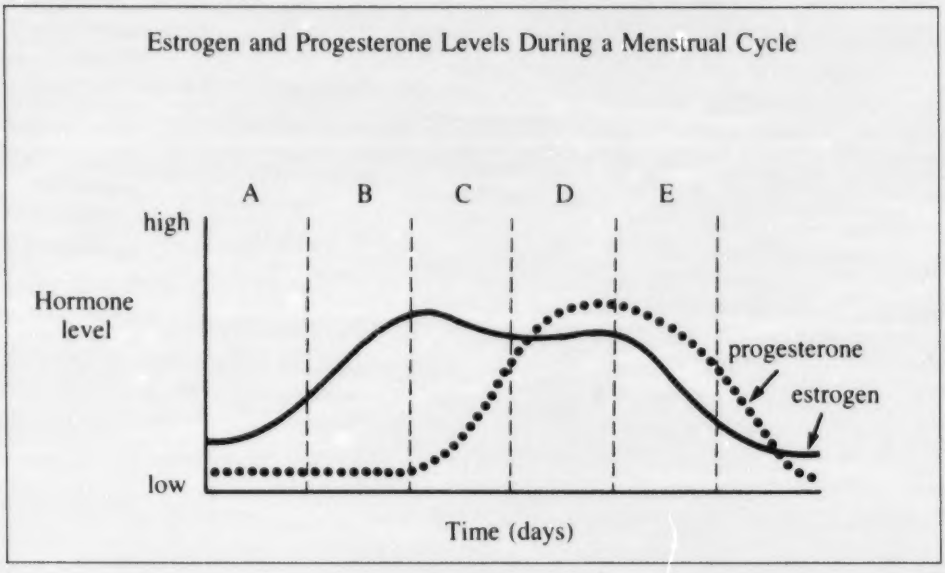
Blood samples taken from five persons are centrifuged and the layering that occurs in each sample is shown below.



(2 marks) **2.** **a.** Which blood sample was taken from a person living at a high altitude? Explain your answer.

(2 marks) **b.** Which blood sample was taken from a person suffering from partial destruction of the bone marrow? Explain your answer.

Use the following information to answer question 3.



(1 mark) **3.** **a.** Which section of the graph (A, B, C, D, or E) represents the ovulation stage of the menstrual cycle?

_____

(2 marks) **b.** Explain your answer.

_____

_____

_____

_____

Use the following information to answer question 4.

Four different tests are performed on patients A, B, C, D, and E. The results are recorded in the table below. (NOTE: The results for Patient A are considered normal.)

Patient	Blood Pressure (mm Hg)	Cardiac Output (L/min)	Hemoglobin (g/100 mL of blood)	Urine Output (mL/24 h)
A	120/70	5.0	15.0	1500
B	130/80	5.5	14.5	1700
C	115/75	4.9	14.8	1450
D	110/75	4.8	15.0	1300
E	90/55	3.0	15.0	500

(1 mark) 4. a. Which patient is suffering from a circulatory problem?

_____

(2 marks) **b.** Explain why this circulatory problem affects the patient's urine output.

_____

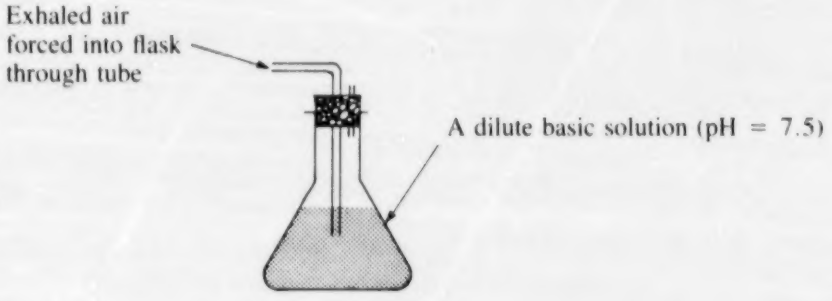
_____

_____

_____

Use the following information to answer question 5.

A student carried out three procedures to determine the effect of exercise on the rate of cellular respiration. Flasks A, B, and C were set up in the same manner as the one shown. The student exhaled into flask A after resting for 15 minutes, into flask B after running for 5 minutes, and into flask C after running for 10 minutes. In each procedure the student exhaled until the pH of the solution changed from 7.5 to 6.7, and noted the time required for this change.



Flask	Activity Prior to Exhaling into Flask	Time Required for the pH to Drop from 7.5 to 6.7
A	resting	10 min
B	5 min running	6 min
C	10 min running	? min

(1 mark) 5. a. Which flask (A, B, or C) provides a control for the experiment?

_____

(1 mark) b. Predict the time required for the pH in flask C to drop from 7.5 to 6.7.

_____

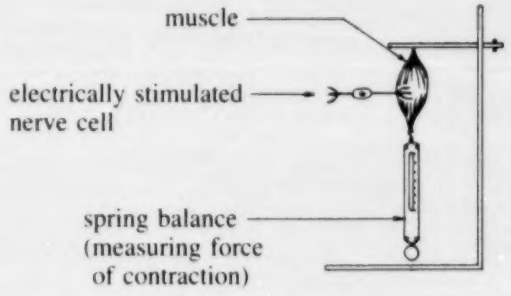
(1 mark) c. What conclusion may be drawn from this experiment?

_____

_____

Use the following information to answer question 6.

A nerve cell in a muscle was stimulated electrically as shown in the diagram below. The strength of the stimulus was increased, and the force of muscle contraction that resulted is recorded in the table.



Trial	Strength of Stimulus (in millivolts)	Force of Contraction (in grams)
1	0	—
2	10	—
3	20	10
4	40	?

(2 marks) 6. a. Based on the results, predict the force of muscle contraction resulting from a stimulus of 40 mV. Explain your prediction.

(1 mark) b. What is the strength of the stimulus at the threshold level?

TEAR-OU
SHEET

(NO MARKS WILL BE GIVEN FOR WORK DONE ON THIS PAGE)

FOLD AND TEAR ALONG PERFORATION

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